UNITED
NATIONS

A

General Assembly

Distr.
GENERAL

A/AC.105/PV.379
10 June 1993

ENGLISH

COMMITTEE ON THE PEACEFUL USES OF OUTER SPACE

VERBATIM RECORD OF THE 379th MEETING

Held at Headquarters, New York,
on Monday, 7 June 1993, at 3 p.m.

Chairman: Mr. HOHENFELLNER (Austria)

- Opening of the session
- Adoption of the agenda
- Election of a rapporteur
- Attendance by non-members of the Committee
- Statement by the Chairman
- General exchange of views

This record is subject to correction.

Corrections should be submitted in one of the working languages, preferably in the same language as the text to which they refer. They should be set forth in a memorandum and also, if possible, incorporated in a copy of the record. They should be sent, within one week of the date of this document, to the Chief, Official Records Editing Section, Office of Conference Services, room DC2-750, 2 United Nations Plaza.

Any corrections to the records of this meeting and of other meetings will be issued in a corrigendum.

93-85963 4546V (E)

The meeting was called to order at 3.25 p.m.

OPENING OF THE SESSION

The CHAIRMAN: I now declare open the thirty-sixth session of the Committee on the Peaceful Uses of Outer Space.

ADOPTION OF THE AGENDA (A/AC.105/L.199 and Corr.1)

The agenda was adopted.

ELECTION OF A RAPPORTEUR

The CHAIRMAN: The Chair has received from Minister Edmundo Sussumu Fujita of Brazil a letter informing the Committee that, owing to his other professional commitments, he will be unable to continue his responsibilities as Rapporteur of the Committee on the Peaceful Uses of Outer Space. I should like personally and on behalf of the Committee to thank Mr. Fujita for his dedicated service to this Committee during the past year.

The Government of Brazil, in keeping with a long-standing tradition, has nominated Mr. Edgard Telles Ribeiro, Minister Plenipotentiary at the Permanent Mission of Brazil to the United Nations, to succeed Mr. Fujita in the position of Rapporteur. We have also been informed by the Chairman of the Group of Latin American and Caribbean States that Mr. Ribeiro's nomination has been endorsed by that Group. I now put that nomination before the Committee. Of course, I am prepared to entertain any other nominations.

As there is none, I consider Mr. Ribeiro to have been elected unanimously as Rapporteur of the Committee on the Peaceful Uses of Outer Space. I should like, on behalf of the members of the Committee, to congratulate him most heartily and ask him to take his place on the podium.

Mr. Ribeiro took his place on the podium.

ATTENDANCE BY NON-MEMBERS OF THE COMMITTEE

The CHAIRMAN: I should like to inform members that I have received notes verbales from Azerbaijan, Kazakhstan, Portugal and Turkey in which they request permission to attend the current session of the Committee on the Peaceful Uses of Outer Space as observers. I should therefore like to suggest that, in conformity with past practice, we invite those delegations to attend the current session and to address the Committee as appropriate.

This is, of course, without prejudice to further requests of this nature and does not involve any decision by the Committee concerning status. It is a courtesy we customarily extend to delegations.

If there is no objection, we shall proceed accordingly.

It was so decided.

STATEMENT BY THE CHAIRMAN

The CHAIRMAN: Now, if I may, I should like to discuss some of the events of the past year and the work of our Committee.

It gives me great pleasure to welcome you, representatives of delegations and of governmental and non-governmental international organizations, to this, the thirty-sixth session of the Committee on the Peaceful Uses of Outer Space.

Last year, we celebrated International Space Year. We were very much aware of the significance of the Year, especially in the context of the changing world and the role that international cooperation in space could play. Our session this year is a continuation of that overall cooperative effort to foster international cooperation in space. I therefore look forward to our work over the next two weeks, during which I hope we can take further steps along the path of progress.

(The Chairman)

If I may, before discussing the events which have taken place in the peaceful uses of outer space during the past year, and the work of the Committee's Scientific and Technical and Legal Subcommittees, I should like, on behalf of the Committee, to thank the Chairmen of these two Subcommittees, Professor John Carver of Australia and Dr. Vaclav Mikulka of the Czech Republic, for the splendid work they have done, once again, in skilfully guiding the Subcommittees through their recent sessions.

(The Chairman)

We should never fail to appreciate the advantages that progress in space exploration provides to humanity through such applications as remote sensing, meteorology and global communications. Thirty years after the launching of the first experimental geostationary communication satellite, SYNCOM 1, by the United States on 14 February 1963, space technology is indispensable for international communications.

Just one recent example of satellite communications is the use of the International Maritime Satellite Organization (INMARSAT) satellite system by the United States to transmit medical data from local hospitals in Somalia as part of the United-Nations-sponsored operations in Somalia. Physicians at a hospital in Mogadishu photograph patients with digital cameras and instantly send the images and other medical data from a portable ground station to specialists at a hospital in Washington, D.C. Because they can receive a reply in less than five minutes, doctors can even transmit images during surgery. In one instance, remote guidance from plastic surgeons proved critical in saving a seven-year-old Somali boy's infected leg.

The technology of space communications is now so flexible and operational that the whole project was implemented in that war-ravaged country - where the peace-keeping contingent of Pakistan suffered many casualties last Saturday - only seven weeks after it was authorized, it can now be easily operated by non-technical personnel.

The United Nations has also continued to use satellite communications, taking advantage of both the INMARSAT and INTELSAT (International Telecommunications Satellite Organization) systems, in its peace-keeping and peacemaking operations in the former Yugoslavia, in Cambodia, in Somalia and other United Nations operations around the world. In addition, data from

(The Chairman)

remote-sensing satellites were used to facilitate refugee resettlement operations in Cambodia and relief efforts in Somalia. It is gratifying to see space technology being put to use in ways that benefit the international community and promote international security, and we can look forward to the expansion of the use of space technology to support future United Nations operations.

There are also many examples of satellite systems being used to improve the internal communications of developing countries and their connections with other countries. In Zaire, for example, satellite-based cellular telephone services were recently introduced to improve domestic communications. Separate cellular systems operating in the country's six largest cities will be tied together utilizing space-segment capacity leased on the INTELSAT system.

As another example of the expansion of satellite communication services, the number of commercial aircraft equipped with satellite telephone systems will more than triple during 1993 thanks to the availability this summer of equipment that can handle several telephone calls simultaneously using the INMARSAT satellites. INMARSAT estimates that 90 commercial planes will have satellite telephone systems by the end of the year, up from about 25 planes now. In addition to the satellite telephone links, about 80 planes use satellite systems for data communications from their cockpits, providing ground controllers with regular updates on the location of the plane and the condition of various instruments. A new multichannel system will provide greatly improved services, and 20 airlines are already planning to use it. The companies involved expect to install more than 300 of these systems in commercial airliners over the next few years.

(The Chairman)

Another rapidly expanding area of space applications is satellite navigation systems, which were developed mainly for military purposes but are widely for civilian and commercial applications. The United States Global Satellite Positioning System (GPS), consisting of 21 Navstar spacecraft, provides instant, global, three-dimensional position information 24 hours a day, and civilian users can determine their locations to within 100 metres. Previous ground-based navigation systems, such as the Loran C radio navigation system used by mariners, can determine location to within only about half a kilometre and are subject to atmospheric effects and limited availability in certain areas.

In addition to applications for fishermen and other maritime users, satellite navigation systems are improving air traffic control and spacing, particularly over long-range transoceanic routes lacking radar coverage.

Another application, and one which was not initially planned, is terrestrial vehicle tracking. Knowing the location of fleet vehicles allows their most efficient use, which is particularly important for public transit fleets, delivery and courier operations, and for police, fire and emergency medical services. Such a system allows a transit dispatcher to monitor bus schedule performance and tailor service to traffic conditions. Transit operations in several United States cities are currently using this system on an experimental basis. In Japan, a new, real-time automotive navigation and travel-management system is available through car dealerships. This satellite-based system gives a driver one-touch access to road and traffic information, maps, position, navigation, and route planning, including en route services and facilities.

(The Chairman)

After this short excursion into the rapidly expanding practical applications of space technology, let me mention some other accomplishments since the Committee met last year.

In the field of human space flight, this year will mark the twenty-fifth anniversary of the first circumlunar flight of the United States Apollo 8 crew and the thirtieth anniversary of the first space flight by a woman, Valentina Tereshkova. Of the 292 humans who have orbited the Earth, 22 have been women, and we hope this number will increase.

The Russian space station Mir continues to serve as a base for space research and applications. It is permanently operated by two cosmonauts, and crew-exchange flights are frequently used for short international visits. This was the case of the March 1992 flight by the German specialist Klaus-Dietrich Flade, and the July 1992 and scheduled July 1993 flights of French astronauts in connection with the Antares and Altair scientific projects. The 1993 Russian human space-flight programme commenced in January with the launch of cosmonauts Gennady Manakov and Alexander Poleshchuk in the Soyuz TM-16 spacecraft and its docking with the Mir space station. The docking procedure provided a test for a piloted docking system that may be used in a joint mission with the United States in 1995.

In April of this year, the space shuttle "Columbia" carried in its cargo bay the European Spacelab module for a ten-day mission, called "Spacelab D-2", to conduct fundamental research in materials sciences, life sciences, astronomy, remote sensing and robotics. A crew of seven astronauts, five from the National Aeronautics and Space Administration of the United States (NASA) and two payload specialists from Germany, performed some 90 experiments, 32 of

(The Chairman)

which were funded and developed by the European Space Agency in cooperation with scientists from universities and research institutes all over Europe. This was the second time that the responsibility for the complete scientific programme of a human space-flight mission was handled by the space operations control centre in Oberpfaffenhofen, near Munich in Germany.

Other international flights conducted by the United States space shuttle since the last session of the Committee include the August 1992 launch of the shuttle Atlantis with the Swiss-born European Space Agency astronaut Claud Nicollier and the Italian Franco Malerba, who performed space technology experiments and tests of a tethered satellite system. The Japanese-sponsored Spacelab J-1 laboratory was launched in September 1992 on the shuttle Endeavor with Japanese scientist Mamoru Mohri on board, and in October 1992, Canadian specialist Steven McLean flew on the shuttle Columbia and assisted in the evaluation of a new Space Vision System for the future space station manipulating system.

(The Chairman)

The Space Shuttle will also be used for a series of Spacelab missions designated the Atmospheric Laboratory for Applications and Science (ATLAS). The first of these missions took place in March 1992 and the second in April 1993. This series is another Mission to Planet Earth activity in which instruments to gather atmospheric and solar science data related to global change - in particular, the relation between the solar energy output and changes of the Earth ozone level - are carried in the payload bay of the Space Shuttle. This is the ideal platform for such research, since the crew can manoeuvre the orbiter so that the instruments in the bay point towards the atmosphere, the Sun or the Earth's surface as necessary for scheduled observations.

It is not possible to cover in this introductory statement every important field of space research and applications. Let me just briefly cover those with a distinctly international tone.

The first in a new United States series of low-cost Small Explorer missions was launched in June last year as a joint effort with Germany. This satellite was placed into low-Earth orbit to collect data on mysterious high-energy particles that may come directly from interstellar sources.

On 24 July 1992 a Delta rocket launched the Geotail international satellite into an extremely elliptical orbit with an apogee near the lunar orbit. A joint effort by Japan and the United States as part of the International Solar-Terrestrial Physics Programme, this scientific spacecraft will study the tail of the Earth's magnetic field out to 220 Earth radii, focusing primarily on its interactions with the solar wind and solar flare particles. Another example of cooperation between these two countries was the launching of Japanese spacecraft Astro D, also called Asuka after the early

(The Chairman)

Asuka era of Buddhism, from Kagoshima Space Centre on 20 February 1993. It is designed to conduct research in the field of X-ray sources in deep space.

A Chinese launcher was used in October 1992 successfully to place in orbit the Swedish small scientific satellite Freja, which is carrying auroral imaging and magnetospheric sensors designed and built in Canada, Germany, Sweden and the United States. It is a follow-up of the highly successful Viking satellite launched in 1986.

On 9 February of this year the first Brazilian satellite, called Satelite de Coleta de Dados (SCD-1) was launched by the Pegasus airborne launching system into low-Earth orbit. It was designed and built by the Brazilian space agency INPE to relay data from Brazilian environmental monitoring stations located around the country, and particularly in the Amazon basin.

The joint United States-France Topex/Poseidon oceanographic satellite, which was launched into low-Earth orbit last August, continues to provide valuable data for mapping ocean currents and tides, measuring ocean levels and determining atmospheric water vapour content to support the development of global climate models.

A number of satellites were launched in continuing satellite communications systems, including a European EUTELSAT, an Indian INSAT and an Australian OPTUS satellite.

China also continued its satellite remote sensing activities with the launch of two recoverable satellites.

Finally, I would like to note the progress made by other countries, some of which are new to space activities. Spain launched its first HISPASAT communications satellite in 1992, providing services to Latin America as well

(The Chairman)

as Spain. Engineering students from the Republic of Korea designed and built a communications microsatellite which was launched on a European Ariane launch in August 1992. Argentina is beginning construction of its first domestically produced satellite, the SAC-B, and Thailand has entered into a contract for construction of its ThaiSat communications system.

This clearly has been another active and exciting year in space, one which was notable for the increasing amount of cooperation between countries in space. In the area of regional cooperation, I would like to mention specifically the convening of the Second Space Conference of the Americas in Santiago in April 1993, which I had the pleasure to address in my capacity as Chairman of this Committee. Let me in this connection express my sincere appreciation for the warm hospitality and the excellent organization of the Conference by the Government of Chile.

I should like now to turn our attention to the agenda items which are before the Committee and which have a direct bearing on such activities.

We have been asked by the General Assembly to consider, once again, and as a matter of priority, ways and means of maintaining outer space for peaceful purposes, and to report thereon to it at its forty-eighth session. As we have in the past, we will examine this question carefully. We will do so, I hope, with added vigour, so that we may continue our progress towards the universal goal of securing outer space for peaceful purposes and promoting international cooperation in the uses of this valuable resource for the benefit of the international community.

We have before us the report (A/AC.105/543) of the Scientific and Technical Subcommittee on the work of its thirtieth session. In accordance with this Committee's recommendations, endorsed by the General Assembly, the Subcommittee once more discussed several items on a priority basis.

(The Chairman)

The Subcommittee jointly considered the two items dealing with the United Nations Programme on Space Applications and the implementation of the UNISPACE 82 recommendations, and re-established for the seventh time its Working Group of the Whole co Evaluate the Implementation of the Recommendations of UNISPACE 82. The report of the Working Group is contained in annex II of the Subcommittee's report.

I should one again like to congratulate the Chairman of the Working Group of the Whole, Mr. Muhammed Nasim Shah of Pakistan, on his tireless efforts to promote consensus and on the way in which he has maintained the tradition of efficiency of this Working Group.

The Working Group noted with satisfaction the valuable efforts of the United Nations, Member States and other relevant international organizations to implement the recommendations of UNISPACE 82, but at the same time observed that, despite these efforts, in the 11 years since UNISPACE 82 many of these recommendations had yet to be fully implemented. The Working Group's conclusions, therefore, were very precise and named four areas in which efforts had to be particularly intensified.

The Working Group noted that UNISPACE 82 had recommended that there should be free exchange of scientific and technological information and an arrangement for the transfer of technologies in order to promote the use and development of space technology in the developing countries. There remain many obstacles, however, to achieving the goal of stimulating the growth of indigenous nuclei and an autonomous technological base in space technology in

(The Chairman)

the developing countries, and the Working Group concluded that a concerted international effort was needed to overcome the these obstacles.

Regarding the promotion of a greater exchange of actual experiences with space applications, the Working Group reiterated the recommendation of UNISPACE 82 that appropriate assistance be given, particularly from international financial agencies, to support demonstration projects to provide opportunities for gaining hands-on experience in space technology applications for the developing nations, through their direct involvement in such applications projects or pilot projects.

With respect to United Nations funding, the Working Group expressed its regret that the budgetary allocations for the United Nations Programme on Space Applications continued to be inadequate to meet the goals of the Programme and to implement the recommendations of UNISPACE 82. In this connection, the Working Group noted that the General Assembly, in its resolution 47/219, had noted the Committee's request to make an adequate budget allocation for the Programme on Space Applications. The Working Group again reaffirmed its view that the Office for Outer Space Affairs should give priority to the full implementation of the Programme within the available resources of its regular budget.

And, finally, on voluntary contributions, the Working Group expressed its appreciation for the support from Member States and international organizations in the form of cash and in-kind contributions for the activities being undertaken by the Programmes, and urged Member States and international organizations to continue their support in the future.

(The Chairman)

Noting that the General Assembly, in its resolution 47/67, recommended that at this session the Committee might discuss the possibility of holding a third UNISPACE conference, the Working Group suggested that the Committee consider the objectives and goals of such a conference and discuss other issues, such as organization, venue, time and funding implications. The Working Group also noted the suggestions of some Member States that the Working Group could serve as a prepartory committee for a third UNISPACE conference.

Following the recommendation of the Assembly, the Committee will discuss this under agenda item 9, "Other matters". I note that Member States have already put forward several interesting ideas regarding a third UNISPACE conference, and I would invite delegations to offer additional ideas for discussion during our consideration of this item.

Those are some of the recommendations offered by the Working Group. I will leave further discussion for our debate. I would note, however, that the recommendations of UNISPACE 82 will not be implemented if we fail to give serious consideration to the Working Group's report and the recommendations contained therein.

The Subcommittee commended the work carried out in the past year by the Programme on Space Applications, reviewed the progress of 1993 activities and approved the proposed programme for 1994. I would, in particular, like to draw attention to the Subcommittee's appeal for support for the Programme through voluntary contributions. I strongly believe that this appeal deserves serious consideration by the United Nations family, and especially the strong support of the members of this Committee. As members are all aware, a number of Member States have offered to host the proposed regional centres for space science and technology education. I should like to echo the Subcommittee's

(The Chairman)

hope that those Member States and agencies which are in a position to assist will make every effort to do so, and I would like to express the appreciation of the Committee to those Member States and international organizations that assisted in the carrying out of exploratory missions in relation to the proposed centres.

Once again, the Subcommittee considered as a priority item matters relating to remote sensing of the Earth by satellite. After reviewing the remote-sensing activities of Member States, the Subcommittee reiterated its view that these activities should take into account the need to provide appropriate and non-discriminatory assistance to meet the needs of the developing countries. The Subcommittee also noted that it was important to make remote sensing data and analysed information openly available to all countries at reasonable cost and in a timely manner, and that international cooperation in the use of remote-sensing satellites should be encouraged, both through coordination of ground-station operations and through regular meetings between satellite operators and users. The request has been made that this item be retained on the agenda as a priority item.

The Subcommittee expressed its satisfaction that after many years of often difficult debate and negotiation within the Committee and its subsidiary bodies, the General Assembly has, in resolution 47/68, adopted a set of Principles Relevant to the Use of Nuclear Power Sources in Outer Space. In accordance with the provisions of the Principles, which provide that they should be reopened for revision by the Committee no later than two years after their adoption, and of General Assembly resolution 47/67, the Subcommittee reconvened its Working Group on the use of nuclear power sources in outer space under the able leadership of Mr. John Carver of Australia. The report of the Working Group is contained in annex II of the Subcommittee's report.

(The Chairman)

The Working Group considered a number of working papers concerning safety aspects of nuclear power sources in outer space, including the risks and consequences of debris collisions with nuclear power sources as well a number of questions related to the possible revision of the Principles. These included a further definition of terms, expanding the scope of the Principles, and the applicability of fundamental nuclear-safety principles.

The discussions within the Working Group exhibited the strong sense of cooperation and consensus that has emerged on the issue of the use of nuclear power sources in outer space, and I hope that we can continue these fruitful discussions about the possible revision of the Principles at this session of the Committee.

For its part, the Subcommittee again agreed that Member States should be invited to report to the Secretary-General on a regular basis with regard to national and international research concerning the safety of nuclear powered satellites, that further studies should be conducted on the problem of the collision of nuclear power sources with space debris, and that it should be kept informed of the results of such studies. The Subcommittee has also recommended that the item be retained on its agenda; in approving the report of the Working Group, it endorsed the view that the Working Group should be reconvened at the next session of the Subcommittee.

In discussing the items dealing with space transportation systems, examination of the physical nature and technical attributes of the geostationary orbit, and space communications, the Subcommittee reviewed national and international cooperative programmes and stressed once more the value of international cooperation in these fields as a mechanism for providing all countries with access to the benefits of space science and technology. The Subcommittee will continue to consider these items.

(The Chairman)

With regard to the scientific matters relating to life sciences and space medicine, the geosphere-biosphere (global change) programme, planetary exploration and astronomy, the Subcommittee heard special presentations by experts from various countries and international organizations. In accordance with the wishes of the Assembly, the Subcommittee paid special attention to the theme of the session - "Space-based communication: The expansion of current services and increased understanding of new systems and services they will make possible".

As we all know, and as was made abundantly clear by discussions on the special theme, communications systems are a vital tool for economic and social development, and I cannot overemphasize the importance of continued joint international efforts, including the sharing and exchange of information, in research and development in this vital area. I must also stress the value of ongoing exploration and research in the other areas discussed by the Committee, especially if projects are open to broad international cooperation.

The theme fixed for special attention at the 1994 session of the Subcommittee is "Space applications for disaster warning, prevention, mitigation and relief". The Subcommittee has once again recommended to this Committee that the Committee on Space Research (COSPAR) and the International Astronautical Federation (IAF), in liaison with Member States, be invited to arrange a symposium, with as wide a participation as possible, to complement discussions on the special theme. The Subcommittee has also recommended that special presentations during its sessions be arranged by Member States in the light of the relevance of the technical presentations to the Subcommittee's substantive consideration of items on the agenda.

(The Chairman)

At this point I should like personally and on behalf of the Committee to thank the Committee on Space Research and the International Astronautical Federation for sponsoring and assisting in the organization of a most interesting symposium on the 1993 theme and for their continuing support of the work of the Committee and its two subsidiary bodies.

While the International Space Year (ISY) and the space and Earth environment are not formal items on the Subcommittee's agenda, there continued to be a fair amount of discussion in the Subcommittee on these matters, and I should like therefore to make a few brief comments on them.

The Subcommittee noted that the wide variety of international programmes initiated in ISY, although concluded in 1992, had made important contributions to international cooperation in space activities, particularly in the use of space technology for studying and monitoring the environment. The Subcommittee recognized the need to continue those cooperative activities and, indeed, to expand them to ensure that the momentum and excitement generated by ISY not be allowed to wane.

With regard to the Subcommittee's discussion of the space and Earth environment, I should like to note that the General Assembly, in its resolution 47/67, reiterated its recommendation that, in planning and conducting space activities, Member States should pay more attention to all aspects related to the protection and preservation of the outer space environment, especially those potentially affecting the Earth's environment.

(The Chairman)

In connection with this matter, I am pleased to note that the Subcommittee has requested the Committee to consider at this session whether the question of space debris should be included on the agenda of the Subcommittee at its next session. The General Assembly has again indicated, in its latest resolution, that space debris could be an appropriate subject for in-depth discussion by the Committee, and the Subcommittee has again agreed that it should receive information on national research on this topic.

It is clear that the ever-increasing amount of space debris and its potentially disastrous effects on the space environment are problems that must be confronted by the international community. I believe that the time has come for this body to fulfil its responsibility to the international community by beginning formal discussions on what steps should be taken to address this growing problem.

I should now like to turn to the work of the thirty-second session of the Legal Subcommittee, the report of which is contained in document A/AC.105/544.

The Legal Subcommittee expressed its satisfaction that after many years of hard work the Principles Relevant to the Use of Nuclear Power Sources in Outer Space had been adopted by the General Assembly. In accordance with the terms of the Principles, the Subcommittee re-established its Working Group on the issue, under the chairmanship of my compatriot, Mr. Helmut Freudenschuss, in order to review and discuss possible revisions to the Principles.

The Working Group conducted a preliminary exchange of views on possible grounds for revision of the Principles but did not undertake such a revision itself. The Working Group concluded that any future revision of the substantive scientific and technical provisions of the Principles should be based on developments which might occur in these fields and therefore that it

(The Chairman)

was advisable to await the input of the Scientific and Technical Subcommittee. I support this cautious yet prudent approach to the Legal Subcommittee's consideration of its agenda item.

Concerning the definition and delimitation of outer space and the character and utilization of the geostationary orbit, the Working Group on this agenda item was reconvened under the able and astute chairmanship of Mr. Estanislao Zawels of Argentina, and, as it had done previously, divided its consideration of this item into two parts. With regard to the definition and delimitation of outer space, the Subcommittee considered a number of working papers, but there was no progress in resolving the differences between those delegations that considered the definition and delimitation of airspace and outer space to be a practical and legal necessity and those delegations that maintained there was no need to establish a juridical boundary between airspace and outer space.

A positive development on this item relates to the decision of the Subcommittee, as a way of focusing discussions on practical matters, to consider circulating among Member States a "Questionnaire concerning aerospace objects". A draft questionnaire was formulated by the Working Group Chairman and is appended to the report of the Working Group, which is contained in annex II of the Legal Subcommittee's report.

With regard to the geostationary orbit, the Working Group based its discussion on a working paper which took into account earlier "working non-papers", and the views and suggestions expressed by many delegations at previous sessions of the Subcommittee. While the substantial exchange of views was characterized by a constructive and positive atmosphere, I should note that the discussions revealed that there is still a wide gulf between the

(The Chairman)

positions of Member States of this issue. Details of these discussions are also contained in annex II of the Subcommittee's report.

Perhaps the most substantive progress was achieved in discussions on the question of outer space benefits. Under the experienced chairmanship of Mr. Raimundo Gonzales of Chile, the Working Group on this item conducted in-depth discussions based on a draft set of "Principles regarding international cooperation in the exploration and utilization of outer space for peaceful purposes", submitted by a number of countries of the Group of 77. Unlike previous sessions which were dominated by sometimes abstract, though interesting, discussions of space law and theories of international cooperation in space activities, this year's session focused on the draft set of Principles, which gives me cause to be optimistic that further progress will be made towards finding a common understanding on this issue. The Chairman's report, contained in annex III of the Subcommittee's report, summarized the views expressed in the Working Group on this item.

As the experience with the Principles on Nuclear Power Sources illustrated, progress often comes slowly in the Legal Subcommittee. But, despite this, we must not lose sight of the valuable contribution that the Committee, through the Legal Subcommittee, has made to the development of international space law. As space technologies continue to advance in the coming years, the United Nations will have an increasingly important and challenging role to play in developing international space law in order to ensure that the access, benefits, understanding and utilization of outer space and its technologies are made available for all humankind.

Concerning procedural aspects of the Legal Subcommittee sessions, I should like to remind members that at our 1991 session it was decided that the

(The Chairman)

Committee would this year decide questions relating to the venue of the annual sessions of the Legal Subcommittee. In addition, in accordance with the General Assembly's recent resolution on the restructuring of the Secretariat (resolution 47/212 B), in particular paragraph 10 thereof, the Committee will have to report to the General Assembly on the impact the planned relocation of the Office for Outer Space Affairs to Vienna will have on the selection of venues for the meetings of the Committee and its subsidiary bodies.

I have briefly reviewed the reports of the two Subcommittees in the hope that our Committee will spend the next two weeks in productive discussions so that we will be prepared to offer these bodies meaningful guidance.

With regard to the Committee's other agenda items, I have already dealt in some detail, in the context of the report of the Scientific and Technical Subcommittee, with the implementation of the recommendations of the Second United Nations Conference on the Exploration and Peaceful Uses of Outer Space (UNISPACE 82).

I should, though, like briefly to discuss the item "Spin-off benefits of space technology: review of current status". This has always proved to be a matter of great interest to Member States and has produced some lively discussions in the Committee. Last year was no exception. The Committee agreed that there was a need to examine ways to strengthen and enhance international cooperation in this field, through, inter alia, improved means of providing access to spin-offs for all countries, with particular attention being given to those spin-offs which could address the social and economic needs of developing countries. Once again I look forward to discussion of this item and suggest that the Committee continue its close examination of this important question.

(The Chairman)

I should also like to note that, in accordance with the Committee's request at its last session, the Secretariat has prepared a detailed, analytical report on the role the Committee might play in implementing the recommendations of the United Nations Conference on Environment and Development (UNCED). That report is now before the Committee in document A/AC.105/547.

It is heartening to see that the primary document resulting from UNCED, Agenda 21, specifically recognized the important role which space remote sensing can play in monitoring the environment and the contributions it can make towards sustainable development of natural resources. I therefore urge Member States carefully to consider the report, and I would hope that it can be used as the basis for further action by the Committee in this important area. I look forward to our discussions on this important matter and further urge delegations to develop additional ideas as to what role the Committee might play in implementing the programmes outlined in Agenda 21.

On a procedural note, I am pleased to inform Member States that the Committee, through the President of the General Assembly, has received a request from Kazakhstan for membership of the Committee. A request has also been received from the Association of Space Explorers for observer status with the Committee. That request is before the Committee in document A/AC.105/L.200. We will discuss these matters at the appropriate time in our debates.

This brings me to the conclusion of my review of the activities of the past year and the work before the Committee.

(The Chairman)

In my two years as Chairman of the Committee, we have witnessed some remarkable changes, not only in the international political and security situation, but in the very way countries view space activities and how they approach those activities. No longer is space seen primarily as a tool for leveraging military power and gaining political prestige. Instead, countries now view space activities in a more pragmatic sense, in terms of the contributions that space technology can offer on Earth to both scientific understanding and general human welfare and development.

But this reorientation may prove to be a double-edged sword. No longer will countries be willing to spend the vast sums required to participate in space activities unless there are tangible and readily visible benefits to be gained from that participation. This represents a tremendous challenge to all of us who are actively involved in the promotion of the use of space technology for peaceful purposes, but it may also serve to highlight the need to expand international cooperation in space activities so that all countries of the world may benefit from them.

The dramatic changes in the international security situation have contributed to substantive progress within the Committee over the past few years and have helped foster a new sense of cooperation within this body. Our task now is to ensure that these trends continue as we confront the issues before the Committee and strive to move forward in our debates.

GENERAL EXCHANGE OF VIEWS

Mr. CHANDRASEKHAR (India): First of all, I should like to express, on behalf of the Indian delegation, great pleasure, Mr. Chairman, on seeing you again in the Chair as you guide the proceedings of this session. We are optimistic that under your mature and wise guidance our Committee will make

(Mr. Chandrasekhar, India)

substantial progress on various items on our agenda for this session. Let me also take this opportunity to express my delegation's deep appreciation and gratitude to the Chairmen of our Subcommittees, Professor Carver and Mr. Mikulka, for the able manner in which they concluded their sessions this year.

Before I touch upon the important issues for this session, permit me to summarize the major achievements of Indian space programmes during the past year. The indigenously built multi-purpose satellite, INSAT-2A, which was successfully launched by the Ariane rocket from Kourou, French Guiana, on 9 July last year, was fully commissioned and made operational soon after launch. This satellite has been performing very well in orbit and has considerably enhanced services in all intended areas, such as telecommunications, television broadcasting, meteorological observation and data relay, disaster warning and satellite-aided search and rescue. With the availability of INSAT-2, a number of services are also being expanded. These include networks for remote-area communications based on low-cost terminals, dedicated business communication and very small aperture terminal (VSAT) networks, additional regional services for television, upgrading rural telephone and telegraphy services and so on. INSAT-2 has also been used for a large number of interactive instructional television applications, aimed particularly at agriculturists, industrial workers and students. There is also considerable enhancement of radio-network services. A satellite news-gathering service based on the concept of the use of simpler ground terminals is also being planned. The second satellite in this series, INSAT-2B, is under preparation at the launch pad in Kourou for its expected flight in early July. Work on the next satellite in the series, INSAT-2C, which will carry a Ku-band transponder, has already begun.

(Mr. Chandrasekhar, India)

As regards the other major branch of remote-sensing applications, it is extensively and reliably supported by the two Indian satellites, IRS-1A and 1B. IRS-1A has been performing for more than five years, well beyond its designed lifetime. A large stream of space applications are operational based on the data from the above satellites. The next satellite in this series - namely, IRS-1C, now being readied for launch in 1994 - would provide further qualitative improvement for the users of the data in terms of spatial resolution, spectral diversity, stereo imaging, onboard video recording and revisit capabilities. Data from a new sensor called Wide Field Sensor (WIFS) on this satellite will be a novel contribution for the world community and will be useful for vegetation monitoring. The Indian Space Research Organizations's (ISRO) launch-vehicle programmes, which aim to provide launch facilities for future Indian satellites, are also proceeding well. The first developmental flight of a Polar Satellite Launch Vehicle (PSLV) is expected to take place towards the end of the current year.

The Indian Space Programme continued to promote international cooperation with the same vigour as in past years. In keeping with the themes and goals of International Space Year, India initiated a large number of research activities for geosphere-biosphere studies and also embarked on an important application mission called Integrated Mission for Sustainable Development, in which space-based data plays a major role. The ISRO's cooperation with various space agencies has also continued. Several joint projects have been identified with the German Aerospace Research Establishment (DLR) for future cooperation, including the flight of DLR-built payloads on future ISRO satellites. Indian space scientists have actively contributed to the workshop entitled Space Technology for Developing Countries - Making It Happen, which

(Mr. Chandrasekhar, India)

was sponsored by the United Nations, the International Astronautical Federation and the American Institute of Aeronautics and Astronautics and was organized just prior to the World Space Congress in Washington. India also participated in the Asia-Pacific Workshop on Multilateral Cooperation in Space Technology and Applications, held in China in 1992.

We note with satisfaction the progress made in our two Subcommittees on various agenda items, although we have yet to reach conclusions on them. We would like to reflect on a few urgent and important themes. First, our delegation would like to stress the need for giving further impetus to international cooperation. The deliberations in our Subcommittees strongly reflect the concerns of a large number of countries for speedier progress to facilitate greater international cooperation and dissemination of the benefits of outer-space activities. The review of the implementation of the recommendations of the Second United Nations Conference on the Exploration and Peaceful Uses of Outer Space (UNISPACE 82) reveals that, in spite of great efforts in the past to provide assistance to developing countries in terms of training, fellowships and so on, large gaps still exist with respect to their needs and available means for assistance and cooperation. Our Committee should consider several steps, including further elaboration of the legal principles that can serve as a strong basis and catalysts for increasing cooperation. We also need to review what steps could foster endogenous capabilities in space science and technology and their applications in developing States. I need not emphasize the need for greater and more concrete participation by developing States if we are to succeed in space projects that aim to address and assist in global concerns such as the environment. Also, the spread of space applications to the developing

(Mr. Chandrasekhar, India)

countries cannot be achieved if it is based mainly on commercial approaches, especially because of the severe limitations of the technological, financial and human resources available to these countries. Hence, a more practical and effective means and basis for ensuring international cooperation are in order.

(Mr. Chandrasekhar, India)

Noting the momentum generated by the initiation of various activities during International Space Year, and also taking into account the important role that space technology has to play in addressing global problems such as the protection of the environment, as concluded by the recent United Nations Conference on Environment and Development in Rio, it would be timely to organize a third UNISPACE conference. Our delegation strongly supports this initiative and considers that the conference should particularly aim to review and promote the level of space applications in developing countries.

It is particularly opportune, in the wake of the end of cold-war confrontations and other geopolitical changes, to initiate a stronger basis for maintaining outer space for peaceful uses and for increasing international cooperation. We are pleased that the General Assembly, through its resolution 47/67, has given us a mandate to discuss the organization of a third UNISPACE conference. We also recall the recommendations of the Scientific and Technical Subcommittee requesting Member States to address the question of such a conference in the Committee under the agenda item "Other matters".

As delegations are aware, a majority of the developing countries must contend with intense pressures on their natural resources in the process of meeting their requirements for development, and space technology could play an important role in this regard. If sustainable development is to be achieved in a global context, participation by the developing countries is essential. In addition, the modern tools provided by space technology are even more relevant to them. In view of this, it would be very appropriate to organize the conference in a developing country. We urge Member States to give serious consideration to an early decision in this matter. India is keen to extend

(Mr. Chandrasekhar, India)

its full support for holding the conference, and our delegation will provide details on the subject when the item is taken up under "Other matters".

Our delegation, as have all others, has voiced concern on several occasions on the importance of maintaining the space environment for the benefit of future generations and, in this context, urged that the subject of space debris be included in the Committee's agenda. We recall, in this context, the request made at the recent session of the Scientific and Technical Subcommittee that this Committee consider whether the question of space debris should be included in the Subcommittee's agenda for its next session. Our delegation strongly supports its inclusion in the agenda for the next session of the Scientific and Technical Subcommittee. We are sure that this reflects the desire of most of the delegations.

With regard to other subjects, our delegation will intervene when they are taken up for detailed discussion.

Ms. KEHRER (Austria): Mr. Chairman, permit me, at the outset, to thank you for your most instructive statement on events that have taken place in the peaceful uses of outer space during the past year. As we can see, it has been another active year in space, characterized not only by increasing cooperation among countries in space but also, as you pointed out, Sir, by a notable number of newcomers engaging in space activities.

We should bear in mind this growing interest in the peaceful uses of outer space as well as the fact that there recently has been a significant increase in the membership of the United Nations when we come to the consideration of the application for membership which is before the Committee.

The adoption in 1992 of the Set of Principles Relevant to the Use of Nuclear Power Sources in Outer Space was one of this Committee's most

(Ms. Kehrer, Austria)

significant achievements in recent years. This success was made possible by a spirit of cooperation and compromise among all members of this Committee. I hope that such a spirit will also prevail in our forthcoming deliberations, particularly about some of the more controversial items.

One of these issues might be the question put before this Committee by the Scientific and Technical Subcommittee, as to whether the question of space debris should be included in its agenda for next year. My delegation has for some time suggested that this Committee and its sub-bodies should deal with environmental questions such as space debris in a more formal and structured way. Now, the time seems ripe for such an approach. We are, however, aware that more consultations will be necessary before we can reach a consensus. In particular, questions such as whether we should first limit discussions to specific aspects of the problem or regarding the appropriate forum in the framework of this Committee will need to be addressed.

The Committee has before it a highly interesting report on its role in implementing the recommendations of the United Nations Conference on Environment and Development (UNCED). Allow me at this point to thank the Secretariat, and in particular the Office for Outer Space Affairs, under its Chief, Mr. Jasentuliyana, not only for the preparation of this excellent document, which demands our careful consideration, but also generally for their continously outstanding work.

Concerning the report I mentioned earlier, Austria fully shares the view expressed therein that space technology and applications can provide valuable input in monitoring the environment. In this context, special efforts should be made to achieve full use of available remote sensing data.

As to the contribution that the Committee itself could make in the

(Ms. Kehrer, Austria)

implementation of UNCED's recommendations, the report underlines the primary role that the United Nations Programme on Space Applications could play in the promotion of the use of space technology for environmental and developmental purposes. It is therefore, in our view, all the more important to provide the United Nations Programme on Space Applications with additional financial resources. Austria is one of the few countries that have regularly contributed to the Programme, and it intends to continue its support. I hope soon to be in a position to announce Austria's contribution for 1993, and I call on all States to follow suit, so as to enable the Programme on Space Applications to cope with the numerous tasks ahead.

Before concluding, allow me to comment on one important procedural question the Committee will have to consider at this year's session.

As generally know, in the context of the ongoing process of restructuring the United Nations Secretariat, the Secretary-General has proposed, and the General Assembly has approved, among others, the transfer of the Office for Outer Space Affairs to Vienna. In the light of the well-known relationship between Austria and the United Nations activities in the peaceful uses of outer space, it would be superfluous to underline our pleasure at and welcome of this transfer. Let me only pledge to the United Nations staff members concerned our full support in making the transfer as smooth as possible.

However, according to operative paragraph 10 of the aforementioned General Assembly resolution on restructuring the Secretariat - General Assembly resolution 47/212 B - the Committee is now called upon to report to the General Assembly on the impact the planned transfer will have on the venues for the meetings of this Committee and its Subcommittees. In this context, Austria wishes to underline the great importance it attaches to the

(Ms. Kehrer, Austria)

full implementation of the Headquarters rule, as established in General Assembly resolution 40/243.

The CHAIRMAN: I now call on the representative of the International Astronautical Federation.

Ms. GERARD (International Astronautical Federation (IAF)): I am honoured to address the thirty-sixth session of the Committee on the Peaceful Uses of Outer Space on behalf of Dr. Alvaro Azcarraga, President of the International Astronautical Federation (IAF).

Founded in 1950, the IAF is now 43 years old and has 125 members in 45 countries. These members include learned societies, national institutions and industrial companies, which convene once a year at an annual congress.

A globally respected organization, the IAF has, like space itself, come of age. Its founders were a group of visionaries who represented the core of a new and burgeoning field of research. Their ideas were derided, and the relevance of their discipline was much doubted by the public. The conquest of space, though it may have excited the imagination, was not considered vital to the fate of humanity nor applicable to problems here on Earth. Certainly, the notion of space as a business was never contemplated.

(Ms. Gerard, IAF)

Much has changed. The past four decades have seen technological feats unimaginable at the mid-point of this century. Scientific discoveries have been made that have helped us unravel the secrets of our universe, engineering achievements have allowed us to expand beyond our earthly frontiers, and space travel has become almost routine. This stupendous progression has elevated space from the level of science fiction to a necessary and integral part of our lives. Often the impact of space technology is little appreciated and little understood, but its benefits are ubiquitous and crucial to modern society.

This period has also seen many other changes. In particular, the world has begun to enter a new epoch as the cold war recedes and geopolitical dynamics begin to shift as a result. With this change has come a realignment of priorities in all nations as Governments strive to find solutions to the problems that plague our planet. In many instances, national leaders are looking for the technological revolution of the past half century to offer ways to combat the many crises that we face.

After more than 40 years of progress, it is now time for the space community itself to enter a new era. Space exploration and technology are no longer seen as simply a race between East and West. The current economic realities are such that the centrepiece exploration projects of the past will not sustain the growth of any nation's space agenda. Space programmes must show a return on the investment that has been made in them. It is imperative that we communicate the many practical opportunities that space can offer to solve some of Earth's most pressing problems. The world's leaders must be made aware of the current benefits and future potential of this tremendous resource, and thus of its continuing promise for humanity.

(Ms. Gerard, IAF)

Already applications of space technology and the results from studying it have expanded areas as diverse as medicine, composites, life sciences and transportation. Indeed, through the use of satellites, space technology has revolutionized both communications and Earth observation in ways that could not have been imagined even 25 years ago. What the future may bring cannot yet be predicted, but, if it is as significant as our past achievements, we must be excited about the possibilities and we must communicate this to decision-makers at all levels.

Many in our community are becoming increasingly aware of the need to use our current space resources more productively so as to address the multitude of challenges that we face. Space must be seen to contribute to the economic and political goals of all nations, and it must be seen to alleviate problems in a practical and cost-effective manner.

It is also becoming more apparent that these problems are global and that the solutions must revolve around international cooperation. This realization puts us at the cusp of a new age; the time has never been better to exploit space applications and technology for the benefit of all nations, particularly those in the developing world.

To enable this to happen we must continue and strengthen international cooperation between spacefaring nations for the benefit of all. A recent report of an international workshop sponsored by the American Institute of Aeronautics and Astronautics stressed the necessity for such action to ensure healthy and viable space programmes for the rest of this century and beyond.

We believe that this Committee has an enormous role to play in shaping and encouraging this cooperation. As the premier organization of

(Ms. Gerard, IAF)

international space dialogue, the Committee on the Peaceful Uses of Outer Space (COPUOS) has many of the mechanisms already in place to encourage a cohesive and constructive strategy designed to maximize both current and evolving space technology for use by the world community.

The International Astronautical Federation (IAF) is ready to support these goals of international cooperation. The 10,000-plus engineers and scientists from IAF and the Committee on Space Research (COSPAR) who met last year at the World Space Congress offer a enormous pool of technological and scientific talent, and should be challenged to aid in this task.

The next IAF Congress, in Graz, Austria, to be hosted by our colleague Dr. Ortner this coming October, will gather many of these individuals together to review our achievements and plan for the future. In conjunction with the United Nations Programme on Space Applications, we will be hosting the third annual United Nations/IAF workshop on organizing space activities in developing countries, at which representatives from developed and developing nations will gather to discuss progress in the developing world.

So, as we enter our forty-fourth year, IAF pledges to continue its role of supporting COPUOS and its work. We will continue to provide the Committee with annual reports that document global space activity and to organize specialized symposia on designated themes at the scientific and technical subcommittee meetings of COPUOS. In addition, we await any new challenges and instructions that are issued by the Committee.

As we enter this new and challenging period let us all embrace the theme of increased international cooperation. Let us all make sure that the benefits that have already accrued from the world's space programmes are not

(Ms. Gerard, IAF)

forgotten and that the future prospects for this exciting and limitless industry are at the forefront of world leaders' thoughts. With a concerted global approach, we can all make sure that the advantages of prospective space exploration are not only found in distant galaxies, but also here on Earth.

The CHAIRMAN: I now call on the representative of the Committee on Space Research.

Mr. HART (Committee on Space Research (COSPAR)): I am most honoured to be able to address this distinguished audience on behalf of the Committee on Space Research in a year that may prove critical in the process now under way in many countries of re-evaluating space programmes. Because of political events of momentous scale in the past several years and budgetary constraints that are in many cases greater than expected, this re-evaluation must be seen as a positive, proactive approach to current necessities.

(Mr. Hart, COSPAR)

COSPAR wishes to support those involved in this process, sure that the interests of space science will not be neglected, and I reiterate the Committee's readiness to assist members and the United Nations by providing expertise in this field. COSPAR would also like to encourage those involved to seize the opportunity created by re-evaluation of national and international space programmes to work even more assiduously towards the goals implicit in the name of this United Nations Committee. COSPAR wishes to encourage more actively than ever reflection on the use and maintenance of outer space for peaceful purposes.

From the very inception of our organization one of the main aims of COSPAR has been to encourage and contribute to the peaceful use of outer space. Indeed, the Charter and By-laws of our Committee were worded in such a way as to take into account the interests and sensitivities of the major space Powers and, hence, to free scientific work carried out under our auspices from the harmful impact of hostile competition. Not content to remain inactive in its pursuit of this goal, COSPAR has consistently sought to depoliticize space research by rewriting its Charter and By-laws as the political climate permitted in order to allow as many nations as possible to contribute on an equal footing in this domain.

The process of widening the input used to guide our Committee's work was completed last year with the adoption of a new Charter and set of By-laws that provide for fully democratic self-government of the international community of space scientists as embodied by COSPAR. It is our hope that this new system of government will not only better serve the interests of space researchers around the world by encouraging non-political cooperation, but also accelerate the application of space research and its results to the resolution of

(Mr. Hart, COSPAR)

pressing societal needs. In particular, COSPAR expects to increase its activities that address concerns of developing countries.

We will work towards this goal by including topics on the scientific programmes of our future meetings such as those to be addressed at our next plenary meeting by our Panel on Space Research in Developing Countries. The Panel will organize at our next Scientific Assembly, to be held in Hamburg, Germany, from 10 to 21 July 1994, a meeting that addresses the role of developing countries in ground-based experiments in support of space observations for global and regional change studies. COSPAR will continue to sponsor or co-sponsor meetings that address matters of interest to developing countries.

Our Committee is also studying ways to promote a direct transfer of expertise to countries where space research does not yet bring results of the desired magnitude and to increase the participation of scientists from less affluent regions of the world in international scientific forums.

As stated in our address to the thirtieth session of the Scientific and Technical Subcommittee of this Committee, COSPAR will continue to play a vital role in the fields of space research and the promotion of relevant applications. We wish to encourage all present to partake in this endeavour with renewed vigour inspired by today's opportunities for further emphasis on the peaceful aspects of space research and remind you that COSPAR stands ready to supply expertise as necessary.

Mr. Chairman, distinguished delegates, members of the United Nations Secretariat, ladies and gentlemen, I wish you most fruitful deliberations in the coming days.

The CHAIRMAN: I now call on the representative of the International Law Association.

Mr. BÖCKSTIEGEL (International Law Association (ILA)): Permit me first for the benefit particularly of those members of delegations who did not attend the sessions of this Committee in recent years, to recall some basic information on the International Law Association (ILA). It was founded as long ago as 1873 at a conference in Brussels, and has ever since been a non-governmental international organization of academics and practitioners in the field of international law. The ILA has some 40 national branches, in addition to its headquarters in London. Its work is presented and formalized at biannual conferences held in various places worldwide. The last conference was held in Cairo, and the next conference will be in Buenos Aires in August 1994. Between these conferences the work is mainly carried out by Committees which are established for the various fields of public and private international law.

One of these Committees is the Space Law Committee, of which I have the honour to be the Chairman. Its Rapporteur is Professor Williams of Argentina, and its members are distinguished specialists in the field, many of whom are well known to members of the Committee on the Peaceful Uses of Outer Space and its Legal Subcommittee.

For further information on the ILA and its work regarding space law, reference may be made to the recent United Nations publication "Space Activities of the United Nations and International Organizations" (A/AC.105/521) of 1992 and the ILA Conference Reports, which are published after every ILA Conference in book form.

(Mr. Böckstiegel, ILA)

In this context, the ILA notes with pleasure that resolution 47/67 adopted on 14 December 1992 by the General Assembly requests other international organizations to continue and, where appropriate, enhance their cooperation with this Committee and

"to provide it with progress reports on their work relating to the peaceful uses of outer space". (resolution 47/67, para. 32)

The major part of this progress report of the ILA to the Committee must deal with the protection and the preservation of the outer space environment, especially space activities potentially effecting the Earth's environment and in particular space debris, because the ILA Space Law Committee is at present concentrating its efforts on the elaboration of a relevant international instrument.

In this context, the ILA notes that the particularly high importance of these interrelated topics is stressed in a number of United Nations resolutions in recent years, including most recently General Assembly resolution 47/67, in paragraphs 23 to 26. The ILA shares the conclusion in that resolution that space debris could be an appropriate subject for in-depth discussion by this Committee in the future. The ILA endorses the request by this year's meeting of the Scientific and Technical Subcommittee that the Committee consider whether the question of space debris should be included on the Subcommittee's agenda for its next session. Furthermore, the ILA would hope that the Committee might also consider placing the question of space debris as soon as possible on the agenda of its Legal Subcommittee.

May I add, Mr. Chairman, that the ILA fully supports your remarks in your introductory statement to the effect that it is time for the Committee to start in-depth discussion on space debris.

(Mr. Böckstiegel, ILA)

Progress reports on the most recent work of the ILA Space Law Committee regarding environmental aspects of space activities, and in particular space debris, were presented by Professor Stephen Gorove to the recent meeting of the Legal Subcommittee in New York in March this year and by me in my statements to last year's meetings of the Committee as well as of the Legal Subcommittee. From these reports it may be recalled that - in pursuance of a series of mandates received from the biannual ILA Conferences in Seoul, 1986; Warsaw, 1988; Queensland, 1990; and Cairo, 1992 - the Committee has been considering the elaboration of principles and guidelines on the subject of environmental risks arising from space activities and particularly from space debris. The legal work of the ILA Space Law Committee in this context has benefited greatly from the assistance of natural scientists and specialists of international reputation in this field who participated in a preparatory conference in Cologne and continue to support the ongoing exchange between Committee members.

(Mr. Böckstiegel, ILA)

Such support is given also in the present stage of the work of the ILA Space Law Committee which, on the basis of the most recent mandate received last year in Cairo, is engaged in drafting the final text of an international instrument. The resolution adopted at the Cairo conference particularly assigned the following substantive matters to be considered in the international instrument: first, the definition of contamination, pollution and debris; secondly, the scope of application of the instrument, which should be as wide as possible; thirdly, a general obligation to cooperate, incumbent on States and international organizations engaged in space activities, in order effectively to implement the instrument; fourthly, in addition, more precise obligations, such as obligations to prevent, to inform, to consult and to negotiate in good faith when there are reasons to believe that a certain space
activity is likely to be detrimental to the environment; fifthly, the questions of responsibility and liability; and sixthly, methods of dispute settlement, including provision for compulsory third-party settlement of disputes should no agreement be reached within a specified time-limit.

At present, a second draft of this instrument is under internal consideration in the exchange among members of the ILA Space Law Committee, and it is hoped that a final draft can be presented to the ILA conference in Buenos Aires next year.

Hence, if the outer space Committee should consider that its Subcommittees might deal with this subject at their meetings in 1994, the ILA would be in a position - and would be most happy - to contribute the result of its work over many years on the subject.

(Mr. Böckstiegel, ILA)

Permit me to mention very briefly other drafts and projects which might be of interest to this Committee. First, as already mentioned in my statement to this Committee last year, the ILA concluded several years ago a draft convention on the settlement of space-law disputes. Developments since then seem to indicate that, with the growth of the number of States active in space and of the volume of commercial space activities by both States and private enterprises, dispute settlement is of more and more practical importance and may have to be taken up again. The International Institute of Space Law, a part of the International Astronautical Federation, will be dealing with this subject at its meeting in Graz in October this year. If members of delegations to this Committee would be interested in receiving the text of the ILA draft convention on the settlement of space-law disputes, they can let me know and I would be pleased to send it to them.

Secondly, let me refer to another draft convention, which deals with a different project and which has been elaborated in a different context. As members may recall, at its 1991 session the Legal Subcommittee took note of the draft convention on manned space flight presented at that session by the International Astronautical Federation. At subsequent meetings, several delegations expressed support for that draft text. The draft convention is the result of several years of cooperation between the Academy of Sciences of the former USSR, the University of Mississippi in the United States of America and, in Germany, our Institute of Air and Space Law. The draft convention was reconsidered at an international expert colloquium organized by our Institute in Cologne in May last year, the proceedings of which have just been

(Mr. Böckstiegel, ILA)

published. Again, I would be pleased to provide a text of the draft convention or a prospectus of the published proceedings to representatives who indicate an interest.

Finally, let me mention the important work started during the last two years regarding the conversion of military space capacities to peaceful uses of outer space. The first United Nations conference on this subject was held at Dortmund, Germany, early in 1992, where a special working group dealt with the conversion of space capacities. The second United Nations conference on this subject, held at Moscow in October last year, dealt exclusively with the conversion of military capacities of the space industry for peaceful purposes. At present, efforts are being made to create an international conversion centre, sponsored by the United Nations; it has been proposed to have such a centre in the city of Bonn in Germany.

Permit me to express the gratitude of the International Law Association for having been given the opportunity to present this statement. Let me repeat that the International Law Association, and in particular its Space Law Committee, is ready, and would be happy, to assist this Committee and its Legal Subcommittee in any appropriate way now or in the future.

The CHAIRMAN: I encourage delegations wishing to speak on agenda item 3, "General exchange of views", to place their names on the list of speakers as soon as possible.

Before adjourning the meeting, I should like to stress, as I have done in the past, the need to make full use of the conference services provided us. I urge delegations to make every effort in that regard.

The meeting rose at 4.55 p.m.